



RADIO WORLD

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LPFM SPECIAL

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VISUAL RADIO



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all sampler from Austin. — Page 24



Repack Could Bring Significant Challenges

Read what NAB's VP of spectrum policy told the national SBE meeting about what's ahead

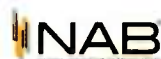
NEWSMAKER

The "repack" of television spectrum in the United States will be an important and ongoing reality for several years. It has implications for both TV and radio broadcasters.

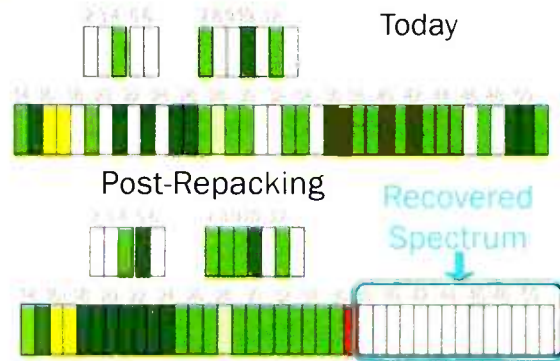
Robert Weller is vice president of spectrum policy for the National Association of Broadcasters and a former chief of technical analysis at the Federal Communications Commission. He addressed the topic in late October in keynote remarks at the Society of Broadcast Engineers National Awards Dinner in Denver. Excerpts:

The incentive auction was the culmination of what some economists call "market-based" economic policy. The idea was to develop a mechanism to allow market forces to drive transitions in spectrum.

Basically, it put some occupied



DTV Repack



A slide from Bob Weller's presentation. "Initial repack costs were dictated by government fiat," he said, "and we now know have come up significantly short."

broadcast spectrum up for sale to see whether the wireless industry was willing to pay more than what the broadcast industry valued the use of that spectrum. The Congressional Budget Office

estimated that an "incentive auction" of television broadcast spectrum would net the government about \$25 billion.

The way it works is this: First broad-

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3 Key Steps to Maximize Smart Speakers

Decide what you want from your Skill, then promote it correctly to your audience

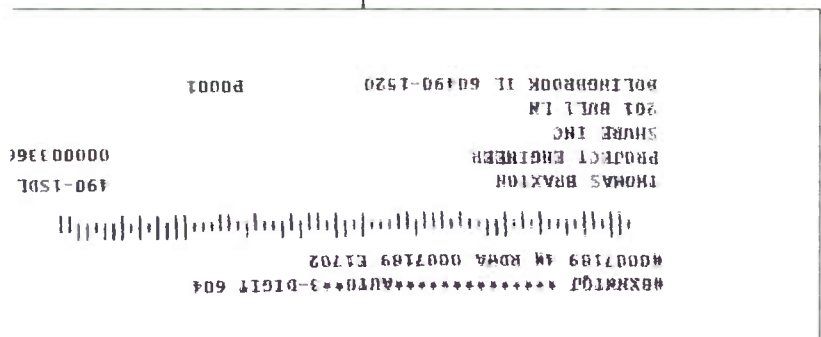
BY TODD THOMAS

The author of this commentary is senior vice president of operations at Futuri Media.

"Alexa, lay out my station's smart speaker strategy for me."

That'd be nice, huh? Actually, that kind of A.I. help might not be too far off. But for now, it's up to each station to decide exactly how they'll maximize the most exciting opportunity to come along for AM/FM radio audience growth since streaming (by the

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PACIFIC RESEARCH & ENGINEERING

LaZ Seeks to Make Its Mark in Detroit

Donated to MMTC by Clear Channel in 2012, WDTW has found a new life with Zamora

COMMENTARY

Daniela Zamora



WDTW "LaZ 1310 AM" is a 5 kW station serving the Detroit area with regional Mexican programming. In addition to a now-distant history as "Keener 13," the station has an unusual and more recent story.

In 2012, Clear Channel donated the station's frequency and land to a Minority Media and Telecommunications Council ownership diversity initiative. Its existing six-tower AM array was dismantled. Some two years later, MMTC sold WDTW at a discounted "incubator" price to Hispanic entrepreneur and broadcaster Pedro Zamora.

He had started out in the restaurant business in the 1980s, then expanded by converting adjacent space into a banquet hall providing music and entertainment on a weekly basis. His Zamora Entertainment, based in Detroit, today oversees operations at eight venues and three radio stations.

Taking on ownership of WDTW, the company rebuilt its towers and installed new studios. It hired a new staff and launched a Spanish-language format. This summer it added an FM translator on 107.9, further increasing its presence in Detroit.

This interview, part of a series of occasional MMTC commentaries in Radio World, is with Daniela Zamora, station vice president/general manager and daughter of Pedro Zamora. She also oversees administrative operations of Zamora Entertainment and operation of four of its venues. The interview was conducted by Suzanne Gougherty, director, MMTC Media and Telecom Brokers, and Stephanie M. Martin-Thom, MMTC Cathy Hughes Fellow.

MMTC: *Why did Zamora Entertainment want to enter the Detroit broadcasting market?*

Daniela Zamora: My father did a short radio show 18 years ago, and we have a concert venue there. So it went hand in hand with the next phase in terms of growth.

Detroit is the 12th market and a very significant major metro market with no formidable media outlet for Mexican Americans. There has been internet radio and another small AM station there, but that station did not have a signal in Detroit, which is where the majority of the Hispanic population lives and works. We really wanted to provide a good full-coverage station because there

full production studio.

Clarence Beverage of Communications Technologies Inc. led the engineering and FCC studies. Mike Vanhooser of Nova Electronics led the building of the tower site, bringing in Steve Benzer of Expert Broadcast Electronics for the studio buildout.

MMTC: *How many employees work for LaZ?*

Zamora: We have eight full-time employees. Three in sales, three on-air talent, one programmer, plus me, along with an outside contractor who does our traffic logs.

MMTC: *As vice president and general manager, what has been your biggest challenge?*

Zamora: Developing a structure for each department. We really put an emphasis on the sales department. Plus hiring the right employees who were familiar with the Spanish market. We wanted to make sure we were delivering a strong program that would resonate in the Hispanic community here in Detroit. So far, we have been able to find and keep good sales executives.

MMTC: *How do you like your new position so far?*

Zamora: It is a very rewarding job, knowing you are providing music, news and information in Spanish to an underserved community in Detroit.

MMTC: *Has your father helped you with the running of the station?*

Zamora: He is always there for me when it comes to processes and procedures. And he was heavily involved with formatting the station's live dayparts. He has a keen knowledge of the Mexican music genre because of his long history working as an entrepreneur in the music industry. He is there when I need him, but pretty much I'm in charge of the day-to-day operations.

MMTC: *Has it been hard to attract a customer base; or was the base there and it's just a matter of getting them acquainted with WDTW?*

Zamora: Yes the customer base is there — although because we do find that there are two very different audiences groups, a traditional audience and the new younger, millennial audience. We have to find a way to appeal to both.

The audience in metro Detroit is substantial and we have gotten a great response. For example in May we had our first St. Jude's promotion and broke all records; the station and our on-air talent raised \$50,000. We beat all the

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ZAMORA

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first-time radio stations in the state of Michigan. St. Jude had a goal of \$20,000 and we not only met that but surpassed it by leaps. Our listeners out-deliver, and that makes us proud to be broadcasting to the Mexican American population who live in metro Detroit.

We did another promotion that is similar to a cotillion or "sweet 16," called a quinceañera for 15-year-old girls. We did 15 quinceañera; we called it quince-quinceañera. It is basically for girls anywhere from 15 to 18 years old who did not get to have their cotillion. We produce the entire event, from the church ceremony to limo rides, pictures, cakes and much more; it is a rite-of-passage celebration. We secured sponsors for all aspects, from the venue, music, photographers, videos, food, dresses, shoes, make-up from many diverse companies in the Metro Detroit community. It was really great promotion for the station, the community and our sponsors. We attracted a thousand people, it again was over-delivery, many more than we expected.

We have a mobile app so we're able to get people to listen to us from outside the Detroit area. We have some people listening to us from Guatemala and El

Salvador; so our AM station is having an impact on Detroit as well in other states and countries. Even for the St. Jude's promotion we had some people donating from Texas, California, Chicago and Nebraska. I like to think that we have

It is a very rewarding job, knowing you are providing music, news and information in Spanish to an under-served community in Detroit.

— Daniela Zamora

some presence through our entertainment venues in those states because I am just amazed when you see those demographics and where that listenership is coming from, the results that you can obtain. It's this kind of turnout that continues to motivate us and pushes us forward.

MMTC: *What was it like growing up in a family of entrepreneurs?*

Zamora: Part of it is a lot of pressure, big shoes to fill. But it is also very encouraging because when you have ideas to share, you have a very supportive environment to brainstorm, to suggest tips and other obstacles to watch out for. At the same time that there is pressure, there is comfort, because you have a family team that you can rely on.

MMTC: *When you were growing up, did you participate in entrepreneurial activities of your own, separate from what your parents did?*

Zamora: Not necessarily on my own. It was more assisting my parents in further developing the company and helping them with their jobs. Along with my brother, we especially had a lot to do with technology and the resources that were available, because everything was coming up on computers as opposed to the traditional paper/pen. So there were many ways we could help to improve our workload in a much more efficient style with the new resources that were available. They were used to running the business pushing papers, so we were helpful to them with technology.

MMTC: *Why did you decide to work with Zamora Entertainment; did you have a different perspective of where you wanted to go with your professional*

career?

Zamora: I always saw myself going to law school. I did get my graduate degree in sociology from the University of Michigan, with a plan on going to law school when I finished; however, I got married and had three kids; it was a little bit of a struggle because I had always worked for our family business since I was 16.

I didn't want to do a couple classes here or there with regards to law school. It is still on my to-do list. I still have little ones in school but I am hoping to circle back to law school next year.

Zamora Entertainment has grown so much that it has been one project after the other, which has been keeping all of us very busy. My hope is that next year that I will be able to delegate a little bit more.

The radio station is still very new and there is a lot of foundation still to be created in terms of policy and procedures. Because we are airing a Spanish-language format, we still have a little bit more to do with regards setting up those policies and procedures, trying to reflect how radio stations operate in a major market. Our advertising clients are growing, so we need to keep pace with what they need and want.

We are trying to find that happy medium.

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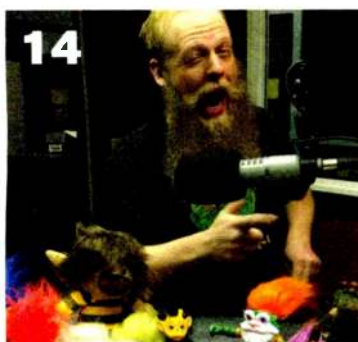
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REPACK

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casters decide how much spectrum they are willing to sell at some price, contingent on not causing too much interference. The original amount was \$86 billion for 126 MHz. Then, see how much wireless companies would bid for 100 MHz of that 126 MHz. If the amount falls short of \$86 billion, then reduce the amount of spectrum offered in order to lower the asking price and try again. If that fails, keep reducing the amount of spectrum offered until revenue exceeds costs by some target amount and you're done. It sounds simple and attractive, right?

Unfortunately, the incentive auction wasn't that simple, and I can say that there were plenty of fights about various aspects of the auction that ended up making it really complicated. When your doctor tells you that your broken arm has a "complication," you know to worry. If broadcasters and wireless companies were just trading dollars for spectrum, I don't think there would have been a lot of fights. One of the main "complications" with the incentive auction is the repack.

The repack is the "magic" that allowed the FCC to buy just 175 stations but force almost 1,000 television stations to change channels. "Magic," in this case, involved the FCC telling broadcasters not to worry, all of the repacking analysis is "under the hood," and we don't need to look there.

We all learned in grade school that there's no such thing as "magic." Forcing stations to change channels was the only way to make the auction work, and it most definitely was not magical or "market-based"! In fact, repacked stations had no say in the process, and there was no "market" to determine how many stations should be repacked or how much wireless carriers would be willing to pay to repack stations. Rather, initial repack costs were dictated by government fiat, and we now know have come up significantly short.

Policymakers should, and I believe will, ultimately ensure time and funds are sufficient to allow broadcasters to complete their moves — so that no viewer is left in the dark because a station is forced off the air or left to foot the bill for expenses that Congress did not intend and stations cannot afford. NAB is working hard to make sure that happens.

"MAKE BROADCASTERS WHOLE"

Fortunately, we now have an FCC chairman who "gets" broadcasting.

Ajit Pai has often related the story that his parents came to the U.S. with a "dream and a transistor radio." He understands broadcasting more than any FCC chairman that we've had for a while. He understands that broadcast-



Robert Weller

ing is vitally important to thousands of communities around the country. He gets that broadcasting plays a vital and crucial role in preserving a healthy democracy. He gets that we provide access to emergency information and help keeping communities safe, and has actively supported including and activating FM receivers in mobile phones.

Hopefully, this FCC will do the right thing and make broadcasters whole as we change channels while avoiding further disruptions in the service we provide.

The incentive auction produced

around \$7 billion for the U.S. Treasury. That figure fell well short of most estimates, including the \$25 billion Congressional Budget Office estimate. In terms of the gross bids, \$20 billion was bid in total by wireless companies for 70 MHz of UHF-TV spectrum, now called the "600 MHz band." By comparison, in the AWS3 auction, \$45 billion was bid in total for 65 MHz of 2 GHz spectrum. In other words, the AWS3 spectrum was valued at more than twice the incentive auction spectrum.

I think that price difference is a strong signal that wireless companies value capacity more than coverage, but nonetheless some policy makers are already pushing for more auctions of TV spectrum and globally our spectrum continues to be under attack. On the broadcast side, stations received as much as \$304 million all the way down to zero dollars. We're still speculating as to why that station walked away with nothing. About 400 stations got coverage haircuts, while about 300 stations actually saw gains. An unexpectedly large number of VHF stations have to change channel, and almost 200 stations got moved into T-Band, which means they may have to contend with another congressionally-mandated auction in a few years.

When the bidding ended last March,

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REPACK

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stations had three months to submit initial cost estimates and construction permit applications. It was immediately clear that the FCC had not adequately prepared for the post-auction repack. During those three months there were data outages, bugs found in the FCC analysis software and many other problems that effectively shrunk three months to perhaps two. Despite all those problems, all but about 25 stations out of the 987 being repacked submitted initial cost estimates and construction permit applications by the July 12 deadline. (And many of those 25 were stations that indicated they could not construct facilities on their new channel.) Over three months passed from the time the cost estimates were received until the FCC allocated money to pay the repacked stations.

Congress set aside \$1.75 billion to reimburse broadcasters who are involuntarily repacked to new channels. It's become clear that figure is short by hundreds of millions of dollars, and possibly even higher if you consider the innocent FM stations and low-power television stations that will be affected. The FCC's initial allocation is just \$1 billion — barely half of the expenses that have already been documented, even after a "haircut" of hundreds of millions of dollars in costs that the FCC admits are reasonable but merely inadequately documented. Not surprisingly, without the funds available to take the necessary steps to complete the repack, stations have been put in a difficult spot.

Stations changing channel are assigned into one of 10 phases. While the FCC took steps to equalize the number of stations assigned to each phase (at least between Phases 2 and 8), the amount of time each station in a phase has to actually change over — the so-called "test period" — varies by a factor of almost four. If you are in Phase 5, you and every other station in that phase must change to your new channel during a 34-day window, while if you are in Phase 2 your station has over four months to change.

We burned up about 15 percent of the 39 months available for repacking work dealing with red tape and delays, and once the real work happens, there undoubtedly will be significant challenges. Your station might be fourth in line for Joe's rigging crew, but if something happens at Site #3 that causes a delay, Joe isn't likely to walk off that job, and so your job and all of the subsequent ones are going to slip, and parts of the repack schedule are going to crash.

In NASCAR, the crash doesn't often happen in the first lap, and I don't expect to see real problems for a while. The point is that there is simply no room for weather problems or other delays in the FCC's schedule. The FCC must be flexible and understand the circumstances faced by each individual broadcaster. Our industry has demonstrated its commitment to work hard to meet our deadlines and we will continue to do so, but things will inevitably happen that hinder stations along the way.

GEARS TURN SLOWLY

Which markets got hit the hardest in terms of number of stations being involuntarily repacked?

Puerto Rico is Number One with 19 stations. Orlando and Raleigh each have 16 stations. Chicago, San Francisco, Atlanta and Pittsburgh each have 14 stations.

These sound like small numbers, but there are lots of stations that will require major tower work or even tower replacement. Why? Because about 85 percent of stations being repacked are moving to lower channels,



"When the bidding ended last March, stations had three months to submit initial cost estimates and construction permit applications," Weller told the SBE engineers in attendance. "It was immediately clear that the FCC had not adequately prepared for the post-auction repack." The chart shows the multi-phase, 39-month repack process.

and as we all know as engineers that antennas for lower frequencies are larger. Then, there are the collocated FM stations that may have to reduce power or switch to an auxiliary facility, if they have one.

There are some stations with particular challenges. For example, some stations need to make technical modifications to their channel assignments, or even want new channels. About 30 stations were assigned to Channel 14 despite the well-known problems of land-mobile interference. One station that spent years moving off a channel shared with the L.A. County Sheriff got repacked back to that same channel. So, the FCC set aside two 30-day filing windows to allow technical adjustments. The first window for stations that cannot build on their new channel closed on Sept. 15. The second window opened on Oct. 2 and will close on Nov. 2; that window is for stations seeking to move off Channel 14 or other channel changes as well as for technical modifications.

With these two windows, I think we can expect mutually-exclusive proposals, border station conflicts and other issues such that some stations will be further delayed in ordering equipment.

Broadcasters have every incentive to move to their new channel quickly and get back to the job of serving their communities. As I said before, I am confident that we will do our best, but the regulatory gears turn slowly and there will be challenges that are entirely outside our control.

NO HIGHER USE

Despite these obvious outcomes, the political pressure is enormous to not let the repack deadline slip. Lately, some at the FCC have been so enamored with mobile broadband and Silicon Valley that the commission's policy choices have unwittingly put us on an unnecessary collision course toward two Americas: one where the video future is available to those who can afford to pay, and one where they cannot. NAB's President Gordon Smith has said this before but it bears repeating: "There is no 'higher and better use of spectrum' than serving diverse audiences with free and local TV programming for all citizens."

Remember, a broadcast signal is always available

with an antenna — and broadcast content is consistently the highest-rated and the most watched on television. No one but local broadcasters provide this free, ubiquitous public service.

It seems everyone wants what we have — our content and our spectrum — but nobody wants to do what we do — provide live news and vital localism.

Radio's future also lies in being available on every device and making choices that support its innovations. Everyone listens to the radio. But not everyone listens in the same way. Though Boomers, Gen Xers and Millennials all spend a lot of time listening to radio, a recent Nielsen report notes that "Millennials have the greatest mass of listenership." Some 66-and-a-half million of them use the radio each week. Radio's audience continues to evolve, and we must continue to evolve with them.

You as broadcast engineers make that content available freely, both radio and television, and on a variety of evolving platforms.

It is, therefore, for me, a high honor and a pleasure and privilege to represent the broadcast industry and particularly broadcast technology. You should also be proud because you are doing great work. Keep doing what you're doing. It's important. It's really important!

Comment on this or any article. Email radioworld@nbmedia.com with "Letter to the Editor" in the subject field.

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COMREX

ALEXA

(continued from page 1)

way, have you *really* maximized your stream yet? I digress ...).

Smart speakers and voice control technology offer radio stations unprecedented ways to engage with their audiences, and the space is growing with remarkable speed.

Research agency Gartner predicts that by next year, 30 percent of our interactions with technology will be through voice control; RBC Capital Markets predicts that by 2020 (just over two years from now!), Amazon Alexa devices alone will sell 60 million units a year.

There are three key things that stations new to the smart speaker space want to keep in mind. These examples are specific to Alexa Skills, as they currently dominate the lion's share of the space, but can be applied universally.

1. Scoop your brand name, and fast!

The first thing that you need to do is claim your brand. Skills are like website domain names: the most popular, user-friendly ones go quickly. Wouldn't you rather be "Mix 100.3" than "Mix 100.3 Kokomo," or some other mouthful of a name?

2. Decide how you'll use your Skill.

Once you grab your brand, you'll need to decide exactly what you'll want from your Skill. Will it just be an "on and off" switch for your stream? How about on-demand benchmarks, like popular morning show bits, or the ability for listeners to request a song or send a message to the DJ, all from their smart speakers without even needing to touch a phone, mobile device or computer?

If you're committing time and effort to creating Skills, the most important thing to remember is you *must* integrate your brand into your voice control technology. And that's more than just playing your stream.

3. Educate your audience.

If you're not promoting your Skill in the right ways and training your audience how to interact with it, you're wasting time, money and opportunity.

Of course, on-air mentions are key. Creativity and relatability must shine, with listener benefit top of mind. Just like saying "download our app" won't



Todd Thomas

help you get much audience engagement for a mobile app, simply telling people that your Skill is available won't cut it.

Think of where and when they're using their smart speakers — the bathroom in the morning, the kitchen after work and the bedroom at night — and promote accordingly through clever imaging and content integration.

Social media and email marketing are other key ways to educate your audience on the benefits of using your skill. Target those who you know are smart speaker users, and develop promotions that talk about your skill in a way that incentivizes your listeners (did you know that Amazon allows you to set up giveaways right through their platform? Pretty cool! For an example see tinyurl.com/trw-todd1, or type "create a giveaway" in Amazon's search field.)

MAKING YOUR SKILL A REALITY

Futuri Media takes a holistic look at everything we do for partners, and Alexa Skills are no different. We *could* create a product for a partner, hand it over, and say, "Good luck!" but I have yet to meet a partner who didn't need or want ongoing strategic consulting to



Think of where and when your listeners are using their smart speakers — the bathroom in the morning, the kitchen after work and the bedroom at night — and promote accordingly through clever imaging and content integration. Shown: Echo Spot.

ensure they're making the most of their investment. We're obsessed with ROI, so that's what we do.

Technology moves *fast* — especially this technology. There are literally daily changes to rules in this Wild West market. My strong advice for any station wanting to take advantage of smart speaker opportunities is to have a partner who can really guide you through the experience, even if that partner isn't Futuri. Don't fall for the one-size-fits-all approach that some companies offer. Vendors pop out Skills in an assembly line, whereas partners are committed to helping you understand what you can get out of this technology to achieve specific goals. As a certified Amazon development partner, Futuri is well-versed in the challenges and processes of working with Skills.

Developing and executing a great Skill is an incredible new chance to

build time spent listening in the home. Remember the days when radio's TSL was more impressive? This is our chance to get some of it back. A smart speaker Skill for your station isn't a magic bullet, but it's a crucial opportunity that you need to exploit in the right ways to see success.

The question shouldn't be, "Do I want to be a part of the voice control movement?" Trust me: you do. If you have any hesitation whatsoever, I strongly suggest purchasing an Alexa device for your home to see how you, and your listeners, interact with them. Then your question will be, "How can I take advantage of this for my brand and listeners today?" And hey — we're happy to help.

Todd Thomas is SVP operations for Futuri Media, an SaaS company offering audience engagement technology and tools. Reach him at todd@futuri-media.com.

IN CASE YOU MISSED IT

A sampling of recent headlines delivered to Radio World readers in their free daily NewsBytes e-newsletter. (Click the Subscribe tab at radioworld.com, then Newsletters.)

► FCC Eliminates Main Studio Rule

The 3-2 vote, along party lines, scrapped a rule that has been around since 1939. The commission said the change gives broadcasters more flexibility in a new digital age that allows those in a community to engage stations via social media and email. Critics say it's one more step away from localism.

► FCC Takes Wraps Off Media Ownership Proposal

The order would eliminate the newspaper-broadcast and radio-TV cross-ownership rules, among other things, but

there would be no change in the local radio station rule.

► Greater Public Stresses Continued Need for Puerto Rico Support

Echoing numerous broadcast organizations, Joyce MacDonald shared some of the struggles that public radio and TV employees there are going through, including lack of food, water and electricity.

► People News

Milford Smith joined the consulting firm of Khanna and Guill as a principal. Elsewhere, Lawo hired David Antoine as a member of its radio technical support team in New York; and Broadcast Electronics promoted Jeff Wilson to director of sales in the U.S. and Canada. The firm will henceforth be known as Smith, Khanna and Guill.



Let your talent focus on what they do best

"The ViA is a high-end codec that met all of our quality expectations. The Tieline team exceeded our expectations & helped us maximize the unit's capabilities"

- Rob Brown, Sports information Director @ Roncalli High School



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Ooooh That Smell, Can't You Smell That Smell?

Actually it smells kind of nice ... but rodents find it repugnant

WORKBENCH

by John Bisset

Email Workbench tips to johnphisset@gmail.com

Engineers are prepping for winter this time of year. So are rodents.

Mice and other vermin seek warm homes to over-winter. Unmanned transmitter facilities make ideal hotels: nice warm power supplies of rack-mounted STLs, processors and remote controls are like heated mattresses or electric blankets.

Keep rodents out and save the headaches of cleaning up after damage is done.

Paul Parent, who does a syndicated radio garden show (www.paulparent.com), featured an interesting product to deter mice. Mouse Magic comes in a package of four pouches, the filler of which is impregnated with peppermint and spearmint oil. These smell nice to us, but mice hate them. In an enclosed area like a transmitter hut or AM antenna tuning unit, the smell is pungent but not overwhelming.

The pouches are safe for use around both children and pets. Paul has had good luck using these packets in his garden shed and garage. I stuck a few in my garage but also in the bottom of the air conditioning condenser, where I've found mice wintering in the past. I'll let you know how effective the pouches are come spring.

As you place the pouches, preferably at night, shine a strong light against the door frame. Close the door and look for any light leakage to indicate potential entry points for vermin. This is easier if an assistant or fellow station employee holds the light. Run it along the entire door frame, vents and any coaxial cable entry points. Seal everything tight using foam and copper or stainless steel wool.

Remember, rodents will chew through spray foam sealer but not copper or stainless steel wool; so stuff the crack with those, then apply the foam sealer.



Fig. 1: Mouse Magic products by Bonide are small packets permeated with peppermint and spearmint oil to repel rodents.

A little bit of preventive maintenance now will save you down time and the chore of — yuck — picking up droppings or cleaning urine-soaked equipment.

Paul Parent has been providing gardening advice for over 30 years; his program is heard nationwide.

Longtime friend of the column and consulting engineer Charles "Buc" Fitch, P.E., writes that his home town of Avon, Conn., seems to be the epicenter of a bear problem. The most recent statistics for Avon have more than 500 reported sightings in one year, of which at least 50 were violent.

Naturalists say the best defense is high-pressure sodium flood lights. Bears have enhanced night vision and they are really bothered by the orange light.

At a recent community meeting, a naturalist was asked if there was any proof or studies about this effect, and though there were several, the naturalist said, "Let's be logical about this as well. Have you ever seen a bear hanging out or sleeping under a high-pressure sodium light?"

This phenomenon was noticed as bears preferred dumpsters under "white light." Of course any dumpster is like a smorgasbord to a bear.

If you've had good luck using high-pressure sodium flood lights around your transmitter site or can offer other tips about avoiding bear problems, let me know. Email me at johnphisset@gmail.com.

Sleek M!ka mike arms have become popular in the United States. Here's a tip about keeping proper tension.

U.S. Sales Manager Jeff Williams — son of former PR&E leader Jack Williams — notes that unlike some other arms you may have used, these German booms have an internal tensioning device that's not controlled by the junction knob visible in Fig. 2. If a microphone starts to sag, pull the boom out and look underneath.

Fig. 3 shows the screwdriver tensioning bolt; turn this clockwise for more tension, counter-clockwise for less. Tightening the junction knob may help, but the proper adjustment is by this hidden tensioning bolt.

Jeff also reminds us that M!ka includes a "Briefing Book" with each arm; refer to it for more information.

(continued on page 12)

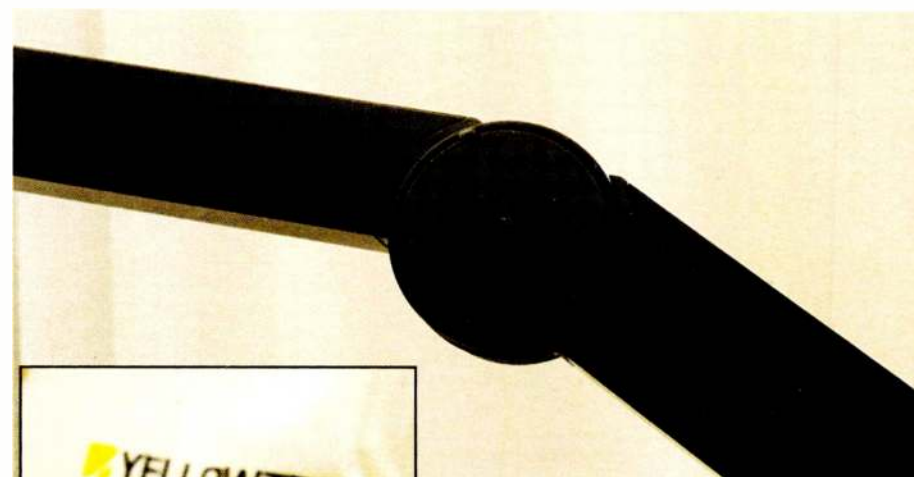


Fig. 2: The junction knob in M!ka arms is not used as the primary tensioner.



Fig. 3: Use this adjusting screw under the base for tensioning adjustments.



Fig. 4: The M!ka Briefing Book advises on proper adjustments of the mic arms.

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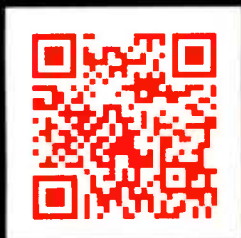
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PEOPLE NEWS



Holly Lim
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Appointed as chief financial officer

Steven Price
Townsquare Media

Becomes executive chairman of the board of directors



Steve Newberry
NAB
Returns as executive vice president for strategic planning/special projects



David Antoine
Lawo
Hired as a member of radio technical support team in New York

Bobby Novosad
Cumulus Media
Promoted to program director of KXKC(FM) in Lafayette, La.

Jeff Wilson
Broadcast Electronics

Upped to director of sales in the U.S. and Canada

Bill Wilson and Dhruv Prasad
Townsquare Media

Promoted to co-CEOs

Doug MacGunnigle
Cumulus Media
Named assistant program director of WEAN(FM), WPRO(AM) and WPRV(AM) in Providence, R.I.



Luke Story
Arkansas Broadcasters Association
Named new executive director



Stephanie Menendez
WGN Radio in Chicago
Has been promoted to director of news and operations



Avery Schultz
GatesAir
Named the new regional sales manager for New Mexico, Oklahoma and Texas

Erik Hellum
Townsquare Media
Appointed as chief operating officer of local media

Steven Welby
IEEE
Tapped as executive director and chief operating officer



Michael Tedesco
WAWZ(FM)
Will serve as sales manager

Send information to radioworld@nbmedia.com with *People News* in the subject field.

WORKBENCH

(continued from page 10)

Projects engineer Dan Slentz is always finding little gadgets that make an engineer's life easier. I appreciate his sharing these "finds" with our readers.

His latest is a two-pack of mini TRRS (Tip-Ring-Ring-Sleeve)-to-terminal block balun that costs under \$10. Shown in Fig. 5, Dan found these on CablesOnLine out of Lynbrook, N.Y. (www.cablesonline.com).



Fig. 5: Two mini TRRS plugs to screw terminals for under 10 bucks!

The adaptor gives the engineer access to the mic input and stereo headphone output of many smartphones. Before you buy, note that there are some phones that use the same size mini-plug, but with five connections (TRRRS). These are all 3.5 mm plugs, sometimes referred to as 1/8-inch plugs. Just make sure you've got the right number of connector contacts.

Your good ideas make *Workbench* better (and may qualify for SBE certification credit). Send them to us at johnpbisset@gmail.com; fax to (603) 472-4944.

Author John Bisset has spent 46 years in the broadcasting industry and is still learning. He handles West Coast sales for the Telos Alliance.

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LPFM Operators, Don't Be Shy

Small stations should ask for help — they'll likely get it from the radio community

LPFM HELP

BY DAN SLENTZ

LPFM radio stations, along with some full-power but small-market stations, often are severely limited in resources. It's sometimes difficult for low-power stations to afford such "luxuries" like a full-time engineer or any staff with broadcast experience. But money shouldn't be a limiting factor to any station in the quest for knowledge.

ENGINEERING ASSISTANCE

First and foremost, get to know broadcast engineers in or near your market.

Find out when the next Society of Broadcast Engineers chapter meeting will be held. (Go to www.sbe.org to learn more.) Attend and consider joining, even if you are just a beginner in engineering. Advice is always free from good engineers, who may be willing to lend a hand.

Contact a local station and ask to speak to its engineer, if they have one. Introduce yourself and be that "good neighbor." Ask for a tour of the station (take donuts — they win over many engineers!)

Seek volunteers with audio/visual experience and look for amateur radio folks. Hams are great around towers and transmitters and can be of help.

I assist a number of small stations and am always glad to lend free advice. I find most engineers glad to share or point you in the right direction.

ON-AIR TRAINING

Radio programming chops and experience on the air are sometimes difficult to find in the LPFM environment. But chances are you have one or two people who have worked in radio, whether it's someone retired from commercial radio or a person who spent time on the air at their college station. These people can be a wealth of knowledge when it comes to training less-experienced

announcers.

It's not farfetched to seek out someone from another station and ask them to pay a visit to your LPFM and hold a training class. WDNP 102.3 in Dover, Ohio, has been fortunate to tap into some high-profile programmers and announcers who have recently moved out of radio and were glad to hold some

classes for volunteers and even cut some liners.

Dave Robbins, formerly of CBS and its digital radio initiative as the chief programmer, paid a visit and spoke with some volunteers. Robbins is not only a former national PD, but a former GM of stations in Columbus, Ohio, as



Former national PD of CBS and major-market radio talent Dave Robbins voices liners after holding a class for volunteers at DNP 102.3



Morning man Steve Slentz with former Dover High School grad and actor James Black of Los Angeles. Black cut voice-overs for the station on this visit. He has been in numerous TV shows, commercials and movies.

well as an on-air personality at stations from St. Louis to Chicago.

Recently, former iHeartMedia regional PD Steve Kelly stopped by for a class on on-air presentation. Not only has Kelly worked as a PD in large markets, he's also worked on-air in major-market radio. Of even more benefit is his distinction of being the "morning man" at commercial stations in the local Dover-New Philadelphia, Ohio, market. He had great insight into local people and local radio.

This type of experience is incredibly valuable to volunteer announcers and provides excellent training and insight into good, old-fashioned, on-air radio work.

(continued on page 16)



WDNP's community "Bargain Balcony Sale" raises money for the station via donated items including a silent auction.

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LPFM

(continued from page 14)

OTHER LOCAL EXPERTS

Besides the programming and engineer, there are many opportunities to tap into your local market's experts. For instance, a local teacher hosts a kid's radio program on WDNP. It's an hour-long show called "Gimme That Shu" featuring Dover school teacher Steve Shumaker. It's funny and entertaining as he talks with local kids about their interests, school and teachers.

Another teacher, local middle school band director, is working on a special jazz show. Even the morning man on

In one case, a local high school student not only found a way to expand his own social skills through the station, he was the first recipient of the DNP 102.3 Volunteer Scholarship as he headed off to Ohio State University.

Volunteers need to be given the room to grow and explore — and to be allowed to use their knowledge to help the station expand.

In the case of DNP, the station's mission is two-fold: first, to provide an opportunity for people to experience and grow in radio (not just being on-the-air, but social media, engineering, public affairs and public relations — all facets of our industry); and second, to act as "the voice" for other nonprofit organiza-



School teacher Steve Shumaker hosts "Gimme That Shu" Saturday mornings at 9 a.m. The studio is always full of local grade-school and high school kids, while their parents sit outside the control room to watch the fun.

this low-power station does his show each weekday prior to his "paying job" at the local car dealer.

DNP has brought in local celebrities and people who have gone on to achieve national celebrity status. Getting well-known local people to cut liners and voice-overs helps to build the audience. Their voices are ones your audience knows and identifies with.

LOOK WITHIN YOUR RANKS

Look at the special gifts in each of your volunteers. There is no one who walks into your station to volunteer who doesn't have some incredible talent. You just need to find out what it is. When you do this, you'll find they'll not only excel at what they know, but they'll grow the station and the abilities of the other volunteers.

I cite WDNP because I work with the station on nearly a daily basis. One volunteer is a retired sheriff's deputy and an avid motorcycle rider. You can see the expertise he brings in public service and working with people.

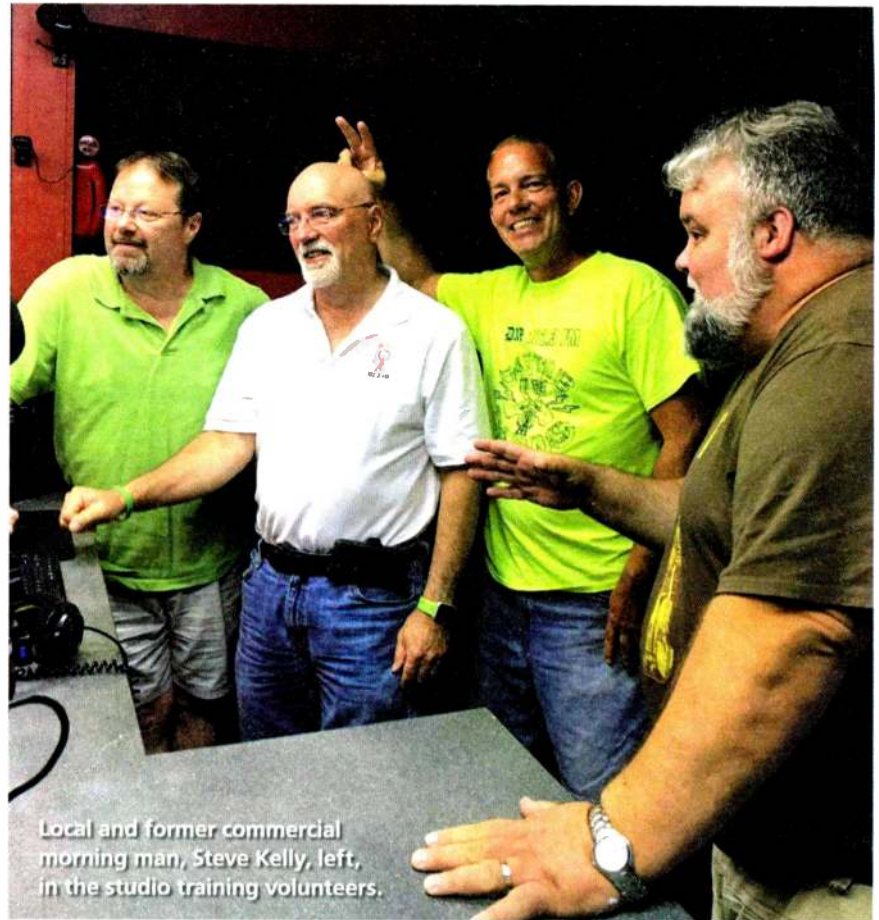
Other volunteers are IT pros who help keep the station on-the-air, as computers are a key part of our daily life in and out of radio.

tions in the area. The station prides itself on helping the audience learn about the local Big Brothers/Big Sisters, to library events, local museums, just about any nonprofit that seeks assistance getting their message out in the world.

Of course, the legal limitations placed on LPFMs excludes fundraising for these organizations, but that is a minor issue. This work to assist other nonprofits helps to grow the station not only in listeners, but also in volunteers. These organizations tend to give back to the station as much or more than the station gives to them through promoting their offerings.

These are just some of the ideas that have built this LPFM and made it a part of the local community. Most ideas come without any cost, yet have a positive impact to the station, the quality of programming (and volunteers) and the community. A big part of the success of any station depends on its integration into the community, to become a part of what is happening in the lives of the people you serve.

Reach out to these listeners — they could be your next volunteer with the expertise in an area where you could really use them.



Local and former commercial morning man, Steve Kelly, left, in the studio training volunteers.



DNP often has local guests including musicians, historians and representatives of non-profit organizations.



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“So...”

“er...”

“well...”

“Um...”

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World Radio History



Texting Is a Key Part of Localism for WMFD

Plus, sponsorship adds another revenue stream for the station

PROGRAMMING

BY TOM VERNON

Localism has always been a vital component of running a successful small-market radio station. It may take the form of local news and sports coverage, a presence at parades and local events, and public affairs programming.

WMFD, a local radio-TV broadcaster in Mansfield, Ohio, has explored localism through a successful text messaging campaign. Rob Meisse, president and general manager of parent company, Mid-State Multimedia Group said it didn't happen overnight.

"We started five years ago with school closings. Then we added high school sports scores. Sponsors were signed up. From there, we just kept adding more categories and topics that our listeners could receive text messages about."

Today, he says, WMFD has 60,000 subscribers and sends 32 million text messages annually. WMFD can also send email messages to its listeners, but text is by far the preferred medium.

Listeners can go on the station website and sign up for messages in categories including breaking news, severe weather warnings, Pump Patrol gas prices, pollen alerts and health department alerts.

"The secret to our success is making it hyper-local," said Meisse. "And with sponsorship, we've grown it into a significant revenue stream for the company."

There is a technology component involved in sending out large numbers of text messages in a short period of time.

Meisse has an IT degree, and wrote the code for the original software used by WMFD to send text messages. "We used to run the entire operation in-house," Meisse said. "But as the service grew, we had to send millions of messages out in short order. At that scale, it

was no longer feasible for us to go it alone."

The station farmed out the distribution component to TextCaster, a permission-based messaging system that allows its customers to broadcast content to many people and across multiple delivery channels. The service enables users to reach target audiences with a few keystrokes via text messages, email or across social media. Other options include mobile web and web syndication.

Some of the stats published by TextCaster suggest the power of this approach to reach people. Ninety-five percent of texts are read within three minutes. Text messages have a 209-percent higher response rate than phone calls. And a 99-percent open rate ensures that the messages do get read.

There is also a bit of salesmanship in the process of signing up listeners for the messages, Meisse said. "When someone goes on our site to sign up for breaking news alerts, for example, they see all the other topics and categories that we have available. Rarely do they just sign up for that one thing."

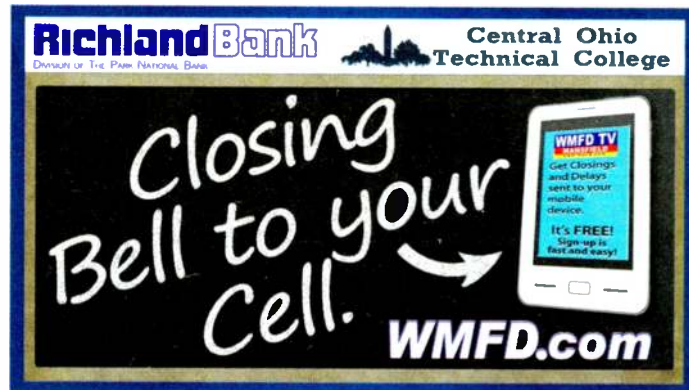
The takeaway from the WMFD experience seems clear: Text messaging services are a great way for stations to enhance their localism and boost the bottom line at the same time.

Meisse offers a few pointers: "Our success with texting is all in the content. Know what kind of information your audience needs, particularly that which is not readily available elsewhere. Start small and get a feel for what is involved. Most important, do it well, and do it consistently. This is where many stations come up short. If you do it right, your numbers will grow big time."

LEGAL CONSIDERATIONS

Stations contemplating a text messaging campaign also need to consider some of the legal implications. Marty Stern, a partner at Womble Carlyle, specializes in legal and strategic counsel for telecommunications, information technology and media firms, and advises clients on TCPA matters. He advises stations to understand the regulations that govern mass dissemination of text messages.

"The Telephone Consumer Protection



Listeners can sign up to receive text alerts when public schools, tech institutes and higher education close their doors for bad weather.

what to do if consent is revoked by a listener, or their cell number is transferred to another customer. A procedure must be in place for detecting and recording revocations, and ensuring that those requests are honored. Users need to scrub lists of reassigned numbers periodically. He adds that there are some services that provide lists of reassigned numbers.

Stern notes that even if a station opts to have a text casting service handle the distribution of their messages, there is still a legal obligation for the station to do due diligence in investigating the



WMFD partnered with the Ohio State Highway Patrol, which was looking for a way to communicate with the public about road issues while reducing the number of calls to overworked dispatchers.

Act governs text campaigns. It is implemented in FCC rules and regulations, and enforced by the FCC, and in the courts through class-action litigation."

He adds that TCPA regulations are unforgiving, with a statutory \$500 per-call fine for violations.

"There is also an aggressive TCPA class-action plaintiff's bar, which files cases in federal courts nationwide. Seven-figure settlements for TCPA violations are not uncommon."

A key point of TCPA, according to Stern, is that stations need prior express consent of the called party. When a listener signs up for messages and provides a wireless number, he or she is giving consent to be called. Stations must have in place a way of obtaining consent as well as documenting and maintaining that evidence.

Another issue that stations need to be aware of, according to Stern, is

service and ensure the contract between the station and the service spells out compliance with TCPA.

He adds, "A recent court ruling held a media outlet vicariously liable for the actions of a telemarketer in not removing the names of those who asked to opt out."

In all cases, stations need to be sure that the maintenance of lists of listeners who have subscribed, those who have opted out, and those who have changed their mobile numbers is accurate and up to date. Also, those interested in launching their own text campaign would be well advised to seek advice from legal counsel with experience in communications law and the TCPA in particular, according to Stern.

Has your station developed a creative solution to a common radio management challenge? Tell us at radioworld@nbmedia.com.





Map indicates the extended range from Wheatstone's processor with multipath control

Great Sound Is Subjective Increased Coverage is Measurable...

Scottie Rice, engineer for KSDS in San Diego, shared his experience in putting a Wheatstone processor on the air in place of another top-of-the-line audio processor. He was able to increase the distance of his listening area substantially.

To see/read Scottie tell the whole story, go to
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World Radio History





Video Doesn't Have to Be Expensive

That's good, since it's becoming an essential part of radio

Gina Grad and Andy Chanley on a wide shot (left) and then just Andy (right) on Facebook Live from the 100.3 The Sound studio in Los Angeles, using a single stationary Mevo camera.

21ST CENTURY PD by Dave Beasing

It's been 37 years since MTV signed on by playing The Buggles' "Video Killed the Radio Star," and radio is still very much alive. But songwriter Trevor Horn may have been correct about his larger point at the time, as told to BBC News: "Video technology was on the verge of changing everything."

Today, one-third of time online is spent watching video, and tech giant Cisco has projected that to rise to 80 percent by 2019. Facebook founder Mark Zuckerberg expects that 90 percent of his platform's content will be video-based by that time.

Anyone who posts regularly to Facebook has noticed that the platform's distribution formula places a high priority on posts that contain video, especially live video. Facebook Product Developer for Video Daniel Danker told last spring's F8 Developers Conference, "We believe the shift to video is as big as — if not bigger than — the shift from desktop to mobile."

Yet while most radio personalities and their stations have moved quickly to establish a presence on social media, fewer are producing and posting video.

Talent Coach Randy Lane says that's largely due to a lack of time and resources — and because they correctly



Steve Barnes, left, with Leslie Fram and Jimmy Baron on a 99X promotional poster in the late '90s.

place a higher priority on their on-air product. A lack of skills can be a problem, too. "Most personalities don't have the technical expertise such as shooting styles, framing and lighting," he says.

GEAR WISH LIST

Video doesn't have to be expensive to be effective, according to Barnes Creative Studios President Steve Barnes.

"You can do a lot with just an iPhone," says Barnes. He makes his living producing video these days, but — from 1994 to 2003 — Steve was one-third of the popular "Morning X with Barnes, Leslie & Jimmy" on Atlanta's 99X.

For radio people who can afford just a small investment in video gear, Barnes would put a small tripod and a stabilizer

at the top of the shopping list.

Then, for under \$500, Barnes suggests buying a Mevo camera, which plugs easily into your iPhone.

Mike Sherry, morning producer on LA's 100.3 The Sound (my station), uses one to shoot live in-studio video for Facebook.

"We begin with a wide angle shot



Consultant and Talent Coach Randy Lane

that includes everyone in the studio. Then with Mevo, we can easily narrow to close-ups of each talent as they speak, all using just one camera," explains Sherry.

Although Lane advises talent to amplify their delivery on radio, to "be you plus 10 percent," that little extra can look hyped on video. "Maintain open body language including eye contact

(continued on page 22)

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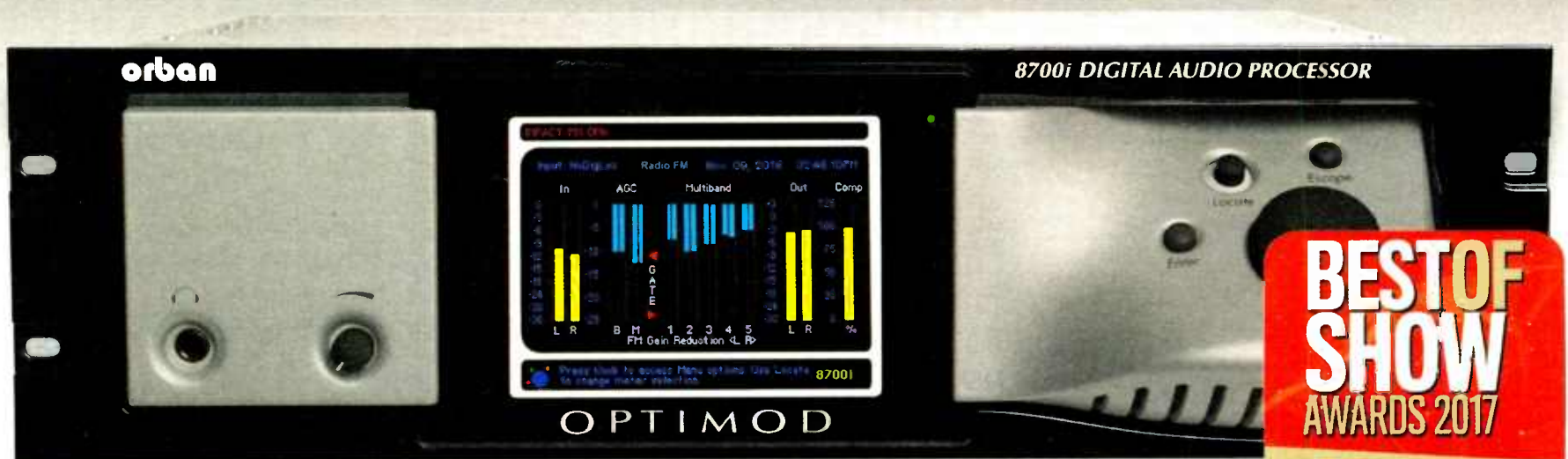
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GM JOURNAL

Live Day: The Past Meets the Future

KISW goes back to radio's roots with annual event

"We broadcast live not because we have to, but because we want to!"

I have heard this sentiment expressed a number of times this year. Remarkably, several of these comments came from small-market radio stations, where one would think this would create a financial burden.

In a voice-tracking world, in which every break is perfect, what's so great about live broadcasting?

Let's start with the unpredictable excitement of live broadcasts. It sounds real, partly because real people make mistakes, but also because live, extemporaneous speaking invariably comes with greater emotion.

With real-time, when something happens, there's no delay for breaking news, weather or traffic. You don't need to hear it from me ... if you're bothering to read this, you already know how wonderful live radio can be.

But let's go beyond either a syndicated or local live morning show and

check out a special event that takes live radio to the next level. Even voice-tracked stations can pull this off once or twice a year!

LIVE DAY

I was so excited to hear about KISW(FM)'s third-annual "Live Day."

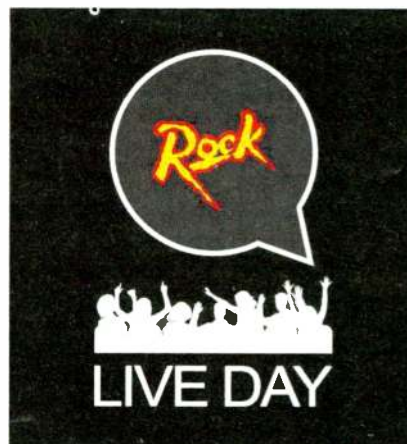
During this event, the Entercom Seattle station's morning and afternoon shows, "BJ & Migs" and "The Men's Room," perform everything at Emerald Queen Casino.

And when KISW says "live," they really mean it. *Nothing* recorded will be used on-air for the shows. This includes live commercials with sound effects and accompaniment from local musicians.

According to KISW VP of Programming Dave Richards, "Doing two full shows completely live clearly wasn't enough of a challenge for KISW. This year, we'll take 'Live Day' to a full-stage production in front of a live audience."

segments. The resulting video content is sponsorable, which encourages management to budget more on video. How did Sherry convince his management to buy a Mevo camera? He offered up the idea of sponsored Facebook Live segments at a brainstorm meeting for the sales department.

Barnes is enthusiastic about the power of video to build brands, both for advertisers and for personalities. "If I were back on morning radio today, I'd want to 'crush it' with Instagram video. It's so simple to use; you can



This year's event is Nov. 16. If you're in the Seattle area, check out www.kisw.com/kisw-live-day-1 to score tickets of your own and see what it's about, firsthand.

Success breeds more success, and it's so cool to see that a valuable product like this have a price tag. Attendance costs \$99.99 for a "premium experience," which includes a seat near the stage and a breakfast and lunch buffet.

'go live' at any time to share as much of your life on camera as you want."

And as Warren Beatty famously said about Madonna in her 1991 "Truth or Dare" documentary, "She doesn't want to live off-camera ... What point is there of existing off-camera?"

As of late October, Dave Beasing was programming the final days of LA's "100.3 The Sound." After a nine-year run, the classic rock station has been earmarked for divestiture by Entercom prior to its merger with CBS Radio.

PROMO POWER



Mark Lapidus

General admission tickets are \$35.

Aside from generating some cash, this cost gives the tickets value. When the station gives them away as prizes on-air, through their website and on social media, those tickets are just about guaranteed to be used and very likely to be water cooler talk among friends and family of lucky attendees.

I had the good fortune of doing several of "all live" broadcasts over the years, and I can tell you firsthand that the "feel-good" it provides for your own staff is amazing. It energizes everyone involved — from on-air talent to event staff, to the sales people who bring their happy clients.

I do suggest you tie in a charity to help you get the word out and also to accept some of the money you generate — or receive in-kind donations from attendees, such as canned goods for a food bank or outerwear for a winter coat drive. During your first outing, I recommend charging either a very low price or keep it free. You have to generate buzz over time with this one.

Is there a bigger idea here? Of course, there is! It gets back to my original plea for more live, local radio.

If you've got a live morning show, consider tackling afternoons next. Or maybe add a few more live shows on the weekend. Do the math and figure out how you can push the envelope to get back into the live entertainment game.

With Spotify, Pandora and others providing cheap or free on-demand listening, how can you compete? The answer may be easier than you think!

VIDEO

(continued from page 20)

with the camera, talk with your hands and arms — palms up — and plant your feet when talking to the camera."

He cites "The KVJ Show" on WRMF in West Palm Beach and "Preston and Steve" from WMMR in Philadelphia as morning shows that have become comfortable on camera. They record their entire shows on video, then edit and post the best content in bite-size

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Couldn't make it to the fall Radio Show in Austin, Texas? Here's a sampling of products featured on the show floor.

ENCO HIGHLIGHTS WEBDAD

ENCO was all about its DAD platform in Austin. It recently expanded the platform into the area of live remote production with an addition to its enCloud suite, WebDAD.



"WebDAD is the first ENCO enCloud solution that allows broadcasters to take full control of the radio station from any remote location with a network connection," the company stated.

"With a direct line to DAD in the studio, the broadcaster can control the complete on-air interface over IP via any standard web browser. This includes the ability to manage and drive on-air presentation, playlist manipulation, voice tracking, and other critical production tasks across the end-to-end workflow."

ENCO says that technologies like WebDAD introduce operational efficiencies for full-time personnel but also allow part-time, contract and remote workers to access the playout system. "This will open the doors to stations with a decentralized work force and allow talent to be heard in several markets with the ability to voice track from anywhere."

The enCloud suite includes tools for mobile journalism and remote voice tracking. Another recent addition, Weblib2, allows users to remotely view and modify media libraries, edit playlists, and more using their smartphones and tablets.

Info: www.enco.com

COMREX INTRODUCES ACCESS NX PORTABLE IP CODEC

Following the rollout earlier this year of its Opal IP audio gateway, codec maker Comrex introduced the Access NX, a portable IP codec.

The Access NX is the latest in the company's Access codec line.

The battery-powered NX features some serious eye candy with a 5-inch touchscreen as the controlling mechanism.

In addition it has a detachable hardware mixer stage that offers four mic/line inputs and headphone outputs.

Other features include two USB ports for 3G/4G/Wi-Fi connectivity, an Ethernet port, a peak limiter, serial and data contact closures. Codec formats are based on AAC group and Opus.

Comrex's CrossLock technology is onboard for error correction, network bonding and streaming reliability.

Info: www.comrex.com



WHEATSTONE OFFERS PEEK AT NEW PROCESSOR

Radio Show audiences got a look at latest Wheatstone processor, the AirAura X4.

The FM and HD audio processor is said to have been a completely new design including an innovative system where all stages of processing are aware of each other. The processor features 31-band limiting, a redesigned bass processor, the improved Multipath Mitigation algorithm, redesigned composite processing with selectable look ahead limiting or clipping, RDS-compatibility, base-band 192 composite AES connectivity, and a full set of analysis displays. The X4 has a built-in HD Radio tuner.

Wheatstone also featured its LXE console as well as its first PR&E console since acquiring that line, called the DMX. Connecting everything was Wheatstone's WheatNet-IP audio network. The network is an AES67-compatible IP audio network utilizing I/O Blades for ingesting audio, controlling microphones and other studio devices, and transporting real-time audio over IP.

Info: www.wheatstone.com

NAUTEL HD MULTICAST+ IMPORTER-EXPORTER NOW SHIPPING

Transmitter maker Nautel notified those at the Radio Show that its HD Multicast+ Importer/Exporter, first introduced at the spring NAB convention and demonstrated in the booth at the Radio Show is now shipping. This new product combines an HD Radio Importer and Exporter into one unit. It includes DTS' Gen 4 HD code along with a built-in multichannel audio card, GPS receiver, Nautel Reliable HD Transport, software, and station logo support.

The Nautel HD MultiCast+ platform includes not this all-in-one product along with separately packaged Importer or Exporter units. The Importer codes the secondary program services of an IBOC transmission, which can include digital channels, two, three, four and multiple data channels. The Exporter combines the digital version of the main audio stream with the secondary audio and data services from the Importer.

Info: www.nautel.com



INOVONICS AARON RECEIVES ANALOG AND HD RADIO



The Aaron 655 handles FM and HD Radio 1-8 signals along with analog, AES-digital

and streaming program inputs. At its core is a software-defined radio receiver.

In addition it has a processing chain that includes "gated and 'windowed' AGC, a unique 'syllabic' leveler, three bands of compression, and both wideband and independent HF limiting." Also featured are four sections of parametric EQ, a Bass Punch utility, independent Density and Loud/Smooth adjustments, and variable composite processing round-out the processing function.

There's a built-in band scanner plus onboard RDS encoder that can also regenerate incoming RDS and/or reformat HD Radio PAD for RDS retransmission.

The Aaron 655 is web-enabled for remote operation. Notifications and alarms are available via email or SNMP.

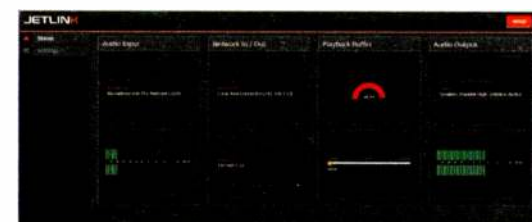
Info: www.inovonicsbroadcast.com

LOGITEK JETLINK BRINGS VIRTUAL RADIO ANYWHERE

At the Radio Show, Logitek launched JetLink, a new line of remote audio products for Radio. JetLink sends and receives broadcast quality audio from point to point.

A free public beta version of JetLink will soon be released that links two computers over a LAN, WAN, or the public Internet. Additional paid features will be added to JetLink based on the feedback received in the free beta program. Interested broadcasters can sign up for the program online at the website.

Info: <http://jetlink.co>



TIELINE'S VIA CODEC TAPS INTO REMOTES



Codec maker Tieline feels that its ViA portable codec delivers the simplest and most intuitive user interface available. Power up, tap "Connect" and go live, the company says.

ViA offers IP, ISDN and POTS I/O. The IP can be accessed via Ethernet, built-in Wi-Fi or USB cellular.

Tieline explains in a release: "ViA includes Tieline's new proprietary Fuse-IP data aggregation technology, which lets you bond any available IP interface. Choose from two USB modems, two Ethernet connections or onboard Wi-Fi. For example, you can bond two USB modem data links from different telcos and let Fuse-IP technology automatically manage the data capability of each link."

The battery-operable ViA is native IP but ISDN and POTS paths can be enabled with available modules that fit into open slots. These modules can also be used to create an IFB circuit.

ViA offers three XLR inputs, three headphone, an AES3 digital input and a stereo aux input. A three-channel mixer is onboard. An LED touchscreen facilitates local operation.

Aiding transmission is Tieline's SmartStream Plus technology for redundant streaming. Signal quality features include Automated Jitter Buffer management, Forward Error Correction and advanced error concealment strategies.

Streaming formats include 24-bit, 96 kHz linear audio, Opus, Tieline Music or MusicPlus, LC-AAC and HE-AAC v.1 and v.2, AAC-LD, AAC-ELD, aptX Enhanced, MPEG Layer 2, G.711 (u-law and a-law) and G.722. ViA can also be remotely operated via IP.

Info: www.tieline.com

MOSELEY STARLINK GOES TO EIGHT CHANNELS



Moseley Associates Inc. has increased the channel capacity its top-of-the-line Starlink studio-to-transmitter links. The new eight-channel Starlinks can transport up to four stereo radio stations on a single 950 MHz STL frequency.

The eight-channel features AES and analog I/O, and choices of linear uncompressed, AAC and MPEG

provide flexible bandwidth usage. RDS channels and one-way Ethernet channel for HD Radio are built-in. It sports full front-panel metering, diagnostics and control and a web browser interface. Plus, the 5-watt onboard power output overcomes challenging RF environments.

Info: www.moseleysb.com



RCS TOUTS MOBILITY

RCS offers apps that allow users to take their software platforms on the road.

The company's keystone product, GSelector music scheduling software, has Selector2Go. For that app the data flow is kept small to enable fast performance, even on mobile networks like 3G. Selector2Go gives users core scheduling, schedule editing functionality and essential analysis details of rotations in the palm of a hand.

The automation platform Zetta has a mobile sidekick, Zetta2Go (both shown). Using a tablet or smartphone a user can view and fire off hot keys for a station, from a laptop or remote desktop a user can control much more.

A desktop Internet browser can display logs, hot keys and a segue/voice track editor allowing the user to voice track empty voice track slots in the log, edit the segue of the voice tracks and fire hot keys from a hot keys bank.

The company's Aquira traffic software is the latest to go mobile, adding Aquira2Go. Harnessing the benefits of touchscreen technology, Aquira2Go's interface simplifies tasks, improves accuracy and productivity, allowing the Account Executive to deliver professional service to a client.

RCS' mobile apps operate on most PC and Mac computers as well as most current smartphones, tablets and e-readers, including the iPad and iPhone.

Info: www.rcsworks.com

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MPXp EXTENDS GATESAIR INTRAPLEX FAMILY

The GatesAir IP Link MPXp is an IP codec designed to minimize bandwidth usage for delivering STL signals. By using AES192 technology and bandwidth reduction schemes, the unit can transport signals as low as 1.8 Mbps, which the company describes as "more than 50 percent reduction in bandwidth utilization compared to most codecs on the market."

Besides a digital composite signal it also handles analog signals as well. GatesAir says, "Its flexible dual-domain capability allows the broadcaster to install a newer audio processor supporting AES192 and have it interoperate with exciters supporting only analog composite signal interface today. This not only provides a transitional path for a digital exciter upgrade, but also enhances signal quality by keeping it in the digital domain across the IP path."

The Intraplex IP Link MPXp shares technology and features from earlier



Intraplex IP Links such as dynamic stream splicing technology, along with multiple input and output ports for signal redundancy, decoding of audio and RDS content from either the input or output signal, and the option to incorporate external SCA subcarrier signals into the output signal. "Its integrated RDS decoder further reduces equipment costs for the broadcaster who was previously forced to install expensive outboard boxes to support RDS," the company says.

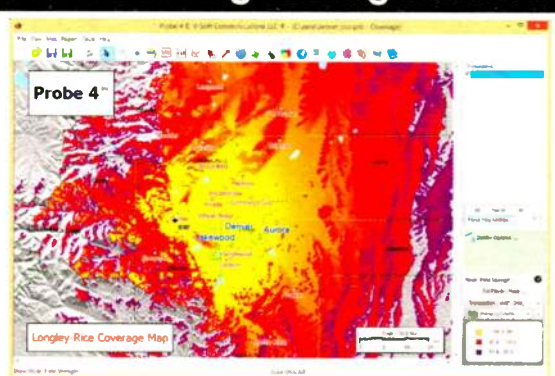
Chief Product Officer Rich Redmond said: "The broadcaster achieves lower-cost links, improved audio quality and enhanced security out of the gate, with the opportunity to simplify processing and distribution architectures and lay a foundation for new services."

Info: www.gatesair.com

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Looking for a broadcast excerpt of a San Francisco Giant's taped off of KSFO radio from 1959, interviews with Willie Mays, Dusty Rhodes & some play by play excerpts, also features a homerun by Willie Mays and Felipe Alou stealing second base, running time is 18:02, also looking for SF Giants games and/or highlights from 1958-1978 also taped off KSFO Radio. Ron, 925-284-5428 or ronwtamm@yahoo.com.

Looking for KFRC signoff radio broadcast from 1930 Andy Potter, running time is 0:22 & also the KLX kitchen the program guest is Susanne Caygill, a discussion of women's affairs with a long promotion for Caygill's appearance at a local store. Anne Truax, Susanne Caygill, running time is 13:44. Ron, 925-284-5428 or email ronwtamm@yahoo.com.

Looking for KSFX radio shows, Disco 104 FM, 1975-1978. R Tamm, 925-284-5428.

Looking for KTIM FM radio shows from 1981-1984 if possible unscoped. R Tamm, 925-284-5428 or ronwtamm@yahoo.com.

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WVMO Is Perfecting Localism

This city-owned LPFM strives for professionalism with a community focus

COMMENTARY

BY KEN MILLS

One of the best aspects of LPFM stations is that they are redefining community radio. One of the best examples is hyper-local WVMO in Monona, Wis.

WVMO "The Voice of Monona" doesn't have strident opinions, politics or religion. It is a reflection of its hometown and is a friend to the community. WVMO is the pride of Monona, a first-ring suburb of Madison (population 7,800).

It is the creation of two commercial radio professionals, Lindsay Wood Davis and Tom Teuber, and a whole lot of community folks.

Davis and Teuber worked for many years in the consolidated, shareholder-driven world of commercial broadcasting. As time went by they realized they missed the magic, fun and sense of service that originally attracted them to the radio biz.

We had the opportunity to interview Lindsay Wood Davis, about his amazing Hall of Fame journey from the top rungs of commercial radio to a not-for-profit 100-watt LPFM station, WVMO(FM).

A LIFE-LONG BROADCASTER

Davis, a member of a three-generation broadcasting family, began in broadcasting at age 17, working in sales at family-owned WGLB Radio in Port Washington, Wis.

Davis' father left Chicago radio and built a group of hometown stations; his mother was a radio actress. His brother Carey managed stations in New York City. His daughter Hannah helped to put the University of Wisconsin's student station WSUM on the air as its station manager. Davis says radio is in his DNA:

"I grew up in the business. My mom and dad were both broadcasters. My family's flagship station was in Sterling/Dixon, Ill. My dad owned stations all

around the Midwest and down south. I was around radio stations before I went to grade school."

Davis got his first "real job" in broadcasting 48 years ago at WGLB(AM), a 250-watt daytime only station. After majoring in education and social policy at Northwestern University from 1968-72, he managed stations



Lindsay Wood Davis at WSDR in 1984



in Eugene, Ore.; Sterling/Dixon, Ill.; Harrisonburg, Va.; Middlebury, Vt.; and Peoria, Ill., for two decades.

In 1992, Davis was eager for bigger challenges. He entered the school of management program at the University of Illinois in Springfield. He studied organizational performance to learn how to incorporate best practices to achieve greater success.

In 1995 Davis "went national." He became director of membership for the Associated Press Broadcast Services, based in Washington. AP is a nonprofit membership organization serving media across the nation. He increased membership and supervised a staff of 40.

While Davis was at AP, the FCC's ownership policies were deregulated. This allowed major group owners to own and operate clusters of half a dozen stations or more. Today, companies such as iHeartMedia and Cumulus own, operate or lease hundreds of stations. Davis helped AP prepare for the new marketplace.

In the late 1990s, Davis moved to Madison to work for Chris Lytle & Associates, which specializes in training media management and sales employees. He got into the "consolidation game" as SVP of sales for Capstar and primary management consultant to Chancellor Media. Capstar and Chancellor consolidated to become AMFM, now part of iHeartMedia (formerly Clear Channel).

Davis was then offered a job with the Radio Advertising Bureau in New York. He was an executive VP, in charge of its

annual conference and training seminars. The work combined his love of radio with his skills in management, sales and strategic planning.

After several years at RAB, he joined two other partners and founded NewRadio Group, (now NRG Media) where he served as chief operating officer. Tired of constant travel, he became VP/market manager for a cluster of Madison stations owned by Entercom. One station in the cluster is Madison Triple A station WMMM. At WMMM, he reconnected with Tom Teuber, who was the PD.

THE WVMO STORY

In the mid-2000s Teuber and Davis talked frequently about the state of the radio business. Then Davis got a call from Paul Meyer, a friend who was an engineer at Wisconsin Public Radio.

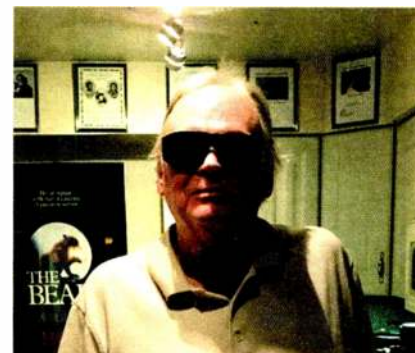
"Meyer asked me, 'Do you think Monona could get one of those new LPFM licenses?' I didn't know much about LPFM, so called David Oxenford, my FCC attorney in Washington, and asked him about LPFM. Oxenford told me that Monona is exactly the sort of place where the FCC hoped LPFM service would be built. But Oxenford cautioned that the process could take a while."

Davis and Teuber connected with Meyer and other Monona residents to apply for a LPFM license. The group then met with Bob Miller, soon to be mayor of Monona, who also had a broadcasting background.

Before he was elected mayor, Miller managed WKOW(TV), the ABC affiliate in Madison.

Davis describes the meeting: "When we started our presentation, someone on the city council asked 'Why does Monona need a radio station?' We were prepared for that question, and we described the opportunity and benefits. Then the mayor and the council voted, and said: 'Sure, go pursue it.' That is what we did."

The City of Monona also had a source of money to build the station. It has an agreement with the local cable company to receive customer access fees. Most localities use access fees to pad the bottom line, but Monona had a by-the-book approach. They invested in



Ken Mills

a local media center and saved most of the money for a future opportunity — like building WVMO(FM).

That was in 2007. What followed was a six-year waiting period before they could file an application with the FCC. Finally, in 2013, the commission again opened the filing period for new LPFM applications; the city applied in November.

Three months later in January 2014, the FCC granted Monona the permit to construct the station. Monona was the only applicant for the frequency.

"We assumed it would take months, maybe years, before they approved the application," Davis said. "We later learned the reason we were approved so fast was because the application was filed by a for-real broadcasting attorney. The FCC wants the Is dotted and the Ts crossed."

The station signed on-the-air on Aug. 20, 2015. Coincidentally, it was the inaugural "National Radio Day."

WAITING

During the six years waiting for the FCC to open a new LPFM filing period, Davis, Teuber and others working on the application stayed busy preparing for the station.

Davis describes the activity during the interim: "During the entire period while we were waiting, we kept planning for the radio station. We talked about programming; we talked about promotions; we talked finances; we talked about engineering — all of the essential things. Tom would often call me and say, 'We've gotta have a polka show. We knew in our hearts, eventually, the window for applications would open up and the station would happen.'"

Mayor Miller turned out to be a particularly valuable member of the team. He helped solve logistical issues, such as the tower site location (it is on top of the fire department's hose-drying tower at city hall) and space for the station's office and studios (a conference room just off the lobby in city hall).

"Our engineering team included



Terry Baun, the director of engineering at Wisconsin Public Broadcasting; John Bauer, the corporate chief engineer for Midwest Family Broadcasting; and Rich Wood of Resonant Results, one of the best antenna and tower specialists in the world. And they each brought in their own specialists when needed, including Paul Meyer, who started the Monona effort at the beginning," said Davis.

"The mayor called our volunteer engineers, 'Lindsay's Million Dollar Engineering Team' because they were the kind of professionals only a big-budget commercial station would hire.

"From the beginning, our focus was on what it would take to build the highest quality station possible at a cost the City could afford. We knew the station needed to sound very professional from

for WVMO.

"To succeed, you have to stay visible. You need to be in parades and community events. There are people who look down their nose at this kind of community radio, but we think it is the essence of localism. We like to say we are small market radio done right. We are taking hometown radio into the listener-sensitive world in a new, sophisticated manner."

Of course, it is easy to romanticize the past, and not every small market commercial station in the 1950s and 1960s was an altruistic community service. But, in most places it worked very well because the impact was immediate.

WVMO celebrated its second anniversary in August. Things are going well for the Voice of Monona. Just as



Will Nimmow, Paul Meyer and Davis

to choose a consistent format. Madison has a very sophisticated radio market with excellent stations, so WVMO needed a unique music niche. They choose Americana, a popular sound not used full-time by other local stations, with the bonus of a strong line-up of local musicians.

WVMO is everywhere in Monona. When you walk into City Hall, the first thing you will see is the on-air studio. If you call any of the city's services and get put on hold, you will hear WVMO. If you ask anyone on the street what they like most about WVMO, many will say the singing jingles.

Jingles are a programming staple for many commercial stations, but they are seldom heard on listener-supported radio. At WVMO, they are an example of the type of no cost, high impact promotional items that Davis is known for.

"Since we are the 'Voice of Monona,' a group of women asked if they could sing jingles for us; they became the 'WVMO Jingle Gals,' a 21st century version of the Andrews Sisters. We also have popular jingles sung by local kids. Now local bands ask us if they can sing a jingle for us."

Hearing listener voices on-the-air is part of the strategy to position WVMO as a fellow citizen.

WVMO's budget is roughly \$75,000 per year. WVMO is governed, on behalf of the city, by the Monona Radio Committee.

the first day. To do this requires very, very good engineering and very, very good equipment."

Simultaneously, the planning team worked with volunteers to instill the same pride in programming.

"We told everybody that we were building a real radio station! It may be a little station, but we are a real radio station. It's not a hobby or a toy. Even though we will have only 100-watts at 100-feet, we can compete with anyone else on the dial."

The emphasis on audio quality pays off for WVMO in a way that Davis loves to describe: "When you go into an audio store and they want to show off how good a particular entertainment system sounds, we want them to tune to WVMO."

THE WVMO DIFFERENCE

Davis and Teuber did their homework before applying for the LPFM license. But they didn't look at existing community stations for a financial or programming model. They have respect for community broadcasters like Madison's WORT, but Davis says they knew what they were doing was different:

"Tom and I started our careers in local radio. The most important station in my early career was my family's flagship station in Sterling/Dixon, Ill., WSDR. It was a 500-watt standalone AM. Tom's first job out of college was at WRCO, in Richland Center, Wis. Then as now, the only radio station in that rural Wisconsin county. Hometown commercial stations were our models

planned, their operations are built using the three attributes of the WVMO brand: "We are community owned, locally programmed and volunteer driven."

Let's examine each attribute in greater depth:

The City of Monona holds the FCC license. WVMO is part of the Department of Community Media with a community access cable TV channel, a YouTube channel and online outreach to city residents. The director of community media is Will Nimmow. In this capacity, he is also WVMO's only paid employee.

WVMO's budget is roughly \$75,000 per year. WVMO is governed, on behalf of the city, by the Monona Radio Committee. The mayor appoints the three members of the committee. Davis is the chair and Teuber and Nimmow are the other members. This group makes decisions for WVMO; Davis calls it a "benign dictatorship."

WVMO has a 501(c)(3) friends group to handle fundraising, publicity and promotional activities.

Although WVMO's on-air programming is handled by volunteers, the structure is professional.

WVMO uses the same techniques that are used by successful noncoms and commercial stations. For instance, the hourly program clock has three mandatory stop-sets at 20, 40 and the top of the hour. This creates a "heartbeat" that makes listeners feel comfortable. A human voice and WVMO's call letters are never far away.

Davis and Teuber knew they needed

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"We record local folks saying our IDs," Davis describes the station's citizen IDs. "Even little kids love to do them. 'Hi, my name is Billy, I live on Nichols Road, and you are listening to 98-point-seven W-V-M-O, The Voice of Monona.'"

Another one of Davis' no cost, high impact fundraising promos is getting listeners to buy a stake in WVMO. "We currently are conducting a campaign to raise \$25,000. We are telling listeners that each of our 100 watts needs a name. They can adopt-a-watt in their own name or of someone they choose for a \$250 donation. Then, next year, you can renew your watt for \$100. So, we are selling our 100 watts in perpetuity."

WVMO differs from many other community and LPFM because programs about politics and religion are not allowed. Davis says that part of the reason is ownership by the city. "WVMO is not here to do opinion programming. We don't ever editorialize on the air. Also, there is no religious programming on WVMO. We do announce church events, but we would never promote a tent revival. We don't do religion. It is a real policy. We do have written policies."

People volunteering at WVMO must sign an agreement to follow rules and procedures detailed in the station handbook (including no religion and no politics). WVMO started with around 40 volunteers and most are still at the station today.

Many of the people who want to volunteer want to be on the air. Davis and Teuber know that they have to make the right choices because firing a volunteer can be messy.

"First of all, nobody who comes to us with an idea for a show is ever

(continued on page 30)

READER'S FORUM

CONSOLIDATION

Regarding "It's Time for Peak Radio" (Sept. 27 issue):

This article should have been called "Peak Corporate Ownership."

I've been around radio since 1965, and the decline in the quality of the content has been exactly proportional to the degree of corporate consolidation. Now these huge corporations are a club, and they have each other's backs, so no one who isn't a member can get into ownership in all but the smallest markets.

Gary O. Keener

HAM RADIO

I read Burt Fisher's response (RW Oct. 11, "Ham Radio Wasteland") to "Strong Ties Bind Amateurs and Broadcasters" with a sunken heart.

Unfortunately, I've entertained similar disdainful comments about ham radio from a handful of colleagues and even supervisors in broadcast engineering throughout my career. Respectfully, I offer comment that these attitudes completely miss the point of the modern amateur service, are ill-informed on how emergency and public service communications are conducted by modern hams, and woefully undervalue the educational opportunities a ham license provides folks, particularly young folks, after that license is obtained.

While the intellectual cost of entry (the license exam) is certainly not what it used to be a half-century ago, the opportunity of hands-on experience with radio technology provided by that license is just as an invaluable part of modern technical society worldwide as it ever has been. The license exam is only a first step. Obtaining a driver's license doesn't make the race car driver — but the experience gained with that card does help if it's coupled with the desire to learn to race.

We need only point to post-Maria Puerto Rico to demonstrate the vital role the amateur service provides in public service and post disaster communications assistance, even in the 21st century. There are too many examples to list, both on a local and hemisphere-wide scale. Digital communications methods dominate health and welfare traffic handling in the amateur service today, and the speed and accuracy provided are previously unmatched. The agility and resilience of a volunteer corps of communications enthusiasts, with their own equipment, who have dedicated time to preparation, training, and ultimately operating in these situations characterizes the tremendous, sometimes life-saving value of ham radio after a major disaster.

Thank goodness this virtue of the service is not needed every weekend — that a majority of hams may never be pressed into emergency communications scenarios —

that most weekends, an amateur can (if he or she so elects) devote some hours to radio sport, casual conversation, chasing long distance contacts, station building, or any of the countless other ways one can enjoy putting the spectrum to a fun and educational use. This hardly constitutes a wasteland.

Amateur radio and broadcasting complement one another wonderfully. A ham license does not make one ready to manage a directional AM. Mr. Fisher is right to point that a ham license shouldn't be a sole qualification to hire a broadcast technician. There are good technician job candidates who are not hams. But an active ham license held by an otherwise good candidate is a potential sign of someone who's interested in how radio works, and has pursued a means of exploring that interest independently. And this creates the potential for a greater technical job candidate.

Josh Arritt (KF4YLM)

JM Arritt Broadcast Technical Service
Catawba, Va

I read with great disappointment Mr. Burt Fisher's opinion of ham radio.

All Mr. Fisher has to do is read Radio World or Radio magazine to know that amateur radio operators do indeed help in time of emergency. See for instance the October story on the Radio magazine website titled "ARRL, Heil Sound Help Volunteers Communicate in Puerto Rico."

Steve Tuzeneu

Network Staff Engineer
BBN Radio Network
Charlotte, N.C.

WVMO

(continued from page 29)

turned away. But we never guarantee anyone that they will be on the air," said Davis. "We want them to first volunteer for other tasks at the station such as doing remotes, help with engineering or doing production work, especially on the many short-form local features we air every hour. This way we get to know them and see how they interact with other volunteers.

"Next, they need to supply us with a rock-solid outline of the first four shows. And, with less detail, we require them to talk about the next six shows. To successfully get a show on WVMO, a volunteer needs to show us that the program idea has depth and will be sustainable.

"Once a volunteer host gets on the air, we do periodic aircheck sessions with them. These aren't formal meetings. It is more about what we like and what we don't like. The most important coaching typically comes from other volunteers — they help each other organically."

IS WVMO SUSTAINABLE?

Davis and Teuber are planning for the next generation of WVMO leadership. Davis knows grooming replacements is vital to future of WVMO.

"Over time, Tom Teuber and I will be gone. Everybody has to remember this is not Lindsay's radio station or Tom Teuber's radio station. It has to be Monona's radio station."

Davis believes it is likely that new management will emerge from WVMO's Friends group. That orga-

nization handles the fundraising and underwriting at WVMO.

WVMO offerse important lessons for other community radio stations:

- **Hyper-local works.** By keeping the focus on the people and activities of Monona, WVMO can continue as long as the city continues. The target audience is clear.

- **Invest in a high-quality sound.** A radio station has only one opportunity to make a good first impression. By focusing on the best equipment and facilities, WVMO's fidelity is as good or better than any other station on the dial. A high-quality sound tells listeners they are serious. Teaching volunteers professional programming techniques builds the station's credibility.

- **Move beyond partisan programming.** To often community radio stations put politics and social causes ahead of good broadcasting. A narrow point-of-view chases away potential listeners. Serve the whole community, not factions.

- **Dare to be silly and have fun.** Some people reading this story may think having homegrown jingles does not convey decorum. Old-school community stations tend to be terminally serious. WVMO is serving the community with a smile and friendly handshake.

Ken Mills is a consultant and blogger based in Minneapolis. Mills spent the first two decades of his career working in commercial radio and the most recent two decades working in public radio.

Learn more at <http://acrnewsfeed.blogspot.com/>.

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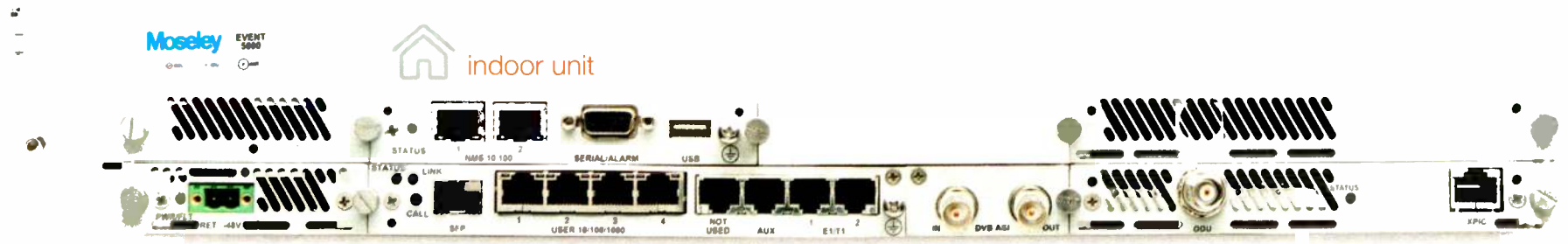
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